

## CONFUSION BETWEEN ACACIA CYANOPHYLLA, A. SALIGNA, AND A. CYCLOPIS.

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These three phyllodinous acacias are native to South Western Australia, but have been planted to a large extent in other countries, particularly South Africa. A great deal of confusion exists as to the separation of the three species, as all three seem to have been exported under the name of *Acacia saligna*. This species is relatively scarce, and a great deal of reputed *saligna*, in the Eastern States at any rate, is *A. cyanophylla*. Dr. Perez, of Teneriffe, writing to Mr. Lane-Poole, the Conservator of Forests, says that great confusion exists at the Cape about this species. He sent specimens numbered from 7 to 14 of reputed *Acacia saligna* to Mr. Maiden, the Government Botanist of New South Wales, who named them all *Acacia cyanophylla*, Lindl.

These two species are very similar and are rather hard to separate, but the third, *Acacia cyclopis* is easily distinguished. *Cyanophylla* and *saligna* belong to the Uninerves, characterised by the one central nerve of the phyllode, with some times a fainter and smaller one, whereas *A. cyclopis* belongs to the Plurinerves, the distinguishing feature of which series is the several longitudinal nerves of the phyllode. In addition the seed of the latter possesses a large red aril encircling the seed in double folds (see Plate). The description is as follows:—

*Acacia cyclopis*.—A. Cunn. in G. Don. Gen. Syst. ii., 404.—

A shrub of six to ten feet usually glabrous with anuglar, branchlets. Phyllodia narrow-oblong, nearly straight obtuse, narrowed at the base, one and a-half to three, rarely four inches long, rigidly coriaceous, with three to five nerves and anastomising almost longitudinal veins. Peduncles solitary or two or three in a short raceme, bearing each a dense globular head of numerous flowers, mostly 5-merous. Calyx turbinate, shortly lobed or toothed, more than half as long as the corolla. Petals smooth, free, pod flat, and four to six lines broad as in *A. melanoxyton* but more coriaceous curved or twisted, seeds nearly orbicular; funicle thickened and richly coloured from the base, encircling the seed in double folds—Bentham, *Flora Australiensis*, Vol. II., p. 388. Localities: King George's Sound, Swan River, Preston River.



The confusion of this species with the others is on account of inaccurate naming by seedsmen and not because of any real affinity to them. *A. cyanophylla* and *A. saligna*, however, are rather difficult to separate from one another. They are both very similar in habit, foliage, flowers, and seed pods, but there are small differences which distinguish them readily.

The descriptions as given by Benthams (Fl. Aust. II, 364), are as follows:—

Phyllodia more or less prominently penniveined—*A. cyanophylla*.

Phyllodia smooth, the veins scarcely conspicuous.—*A. saligna*.

*A. saligna*.—Wendl. Comm. Acac. 26.—A tall shrub or tree quite glabrous, with angular branchlets. Phyllodia falcate-lanceolate, rather obtuse, much narrowed towards the base, many inches long, rather thick, one-nerved, obscurely or rarely more distinctly penniveined, with nerve-like margins, the marginal gland distinct from the base often wanting. Racemes short with few globular heads, larger than in the preceding six species, the rachis rather stout and flexuose. Flowers about 25–30 in the head, often slightly pubescent, mostly pentamerous. Calyx not half so long as the corolla truncate or sinuate toothed. Petals smooth, pod flat often five or six inches long, usually straight, scarcely three lines broad, not at all or slightly contracted between the seeds. Seeds oval oblong, longitudinal. Funicle short, gradually thickened almost from the base into a club-shaped fleshy aril. Localities: King George's Sound, rare, R. Brown; to the Eastward, Baxter; towards the Great Bight, Maxwell.

*Acacia cyanophylla*.—Lindl, Bot. Reg. 1835. Misc. 49.—

A tall handsome shrub glabrous and often more or less glaucous, emitting at least in cultivation suckers from the roots, branches scarcely angular. Phyllodia from linear oblong to lanceolate falcate, the lower ones sometimes over a foot long, the upper ones half a foot or less and narrower, much narrowed towards the base one-nerved penniveined, with nerve-like margins, the marginal gland obscure or none. Racemes short with 3–5 heads of numerous (above 40) flowers mostly 5-merous, the common rachis rather stout and flexuose, the peduncles 3–6 lines long, sepals cohering to the middle in a tubinate lobed calyx. Petals smooth but with prominent midribs. Pod several inches long, flat, 2 to  $3\frac{1}{2}$  or rarely three lines broad, contracted between the seeds. Seeds oblong, longitudinal, funicle as long as the seed, the last fold slightly thickened into a somewhat clavate aril with very short folds below it. Localities: Swan River.



These descriptions require a very slight alteration.

Some specimens of *Acacia saligna*, collected by Oldfield and Maxwell, were obtained from the National Herbarium of Victoria through the courtesy of Professor Ewart, and I have also examined a large number of specimens collected personally. The only alteration to the description of *A. saligna* is with regard to the pods. The original description says "not at all or slightly contracted between the seeds." Many specimens including Oldfield's are distinctly contracted between the seeds. The description of *A. cyanophylla* says "branchlets slightly angular"; in many cases the branchlets are very prominently angled, especially in young plants. Again it says "Racemes short with 3-5 heads of numerous (above 40) flowers." A great many specimens contain up to nine heads in a raceme.

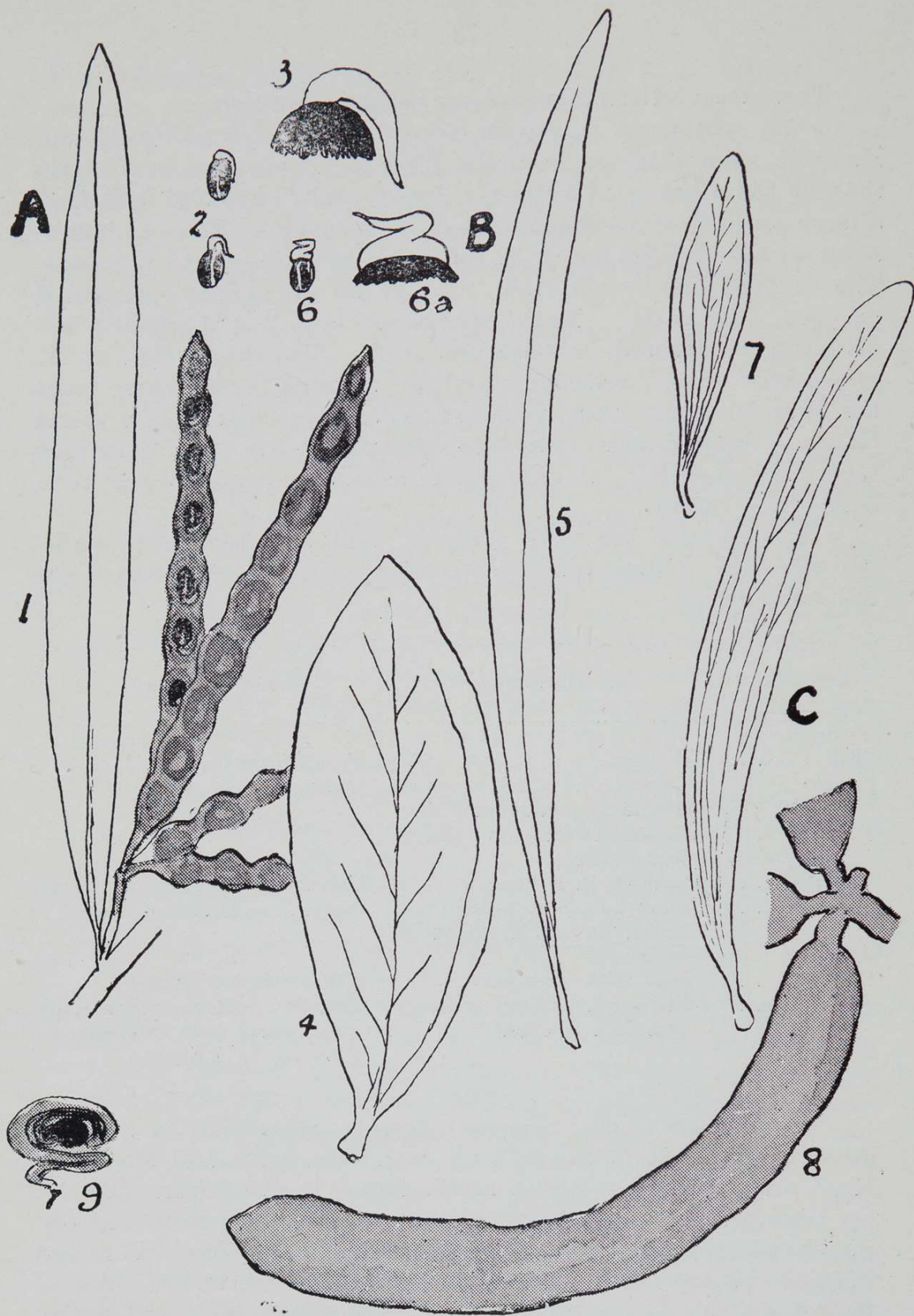
Both species are very variable, and are frequently indistinguishable in foliage and habit. The principal differences are tabulated below:—

Character.	<i>Acacia cyanophylla.</i>	<i>Acacia saligna.</i>
Size ...	Tall shrub ... ..	Tree or shrub
Leaves ...	Glabrous and glaucous more distinctly penniveined than in <i>saligna</i> and the younger leaves long	Glabrous
Flowers ...	About 40 in a head	Twenty-five to thirty in a head
Calyx ...	Half or a little more than half as long as corolla, turbinate, lobed	Not half as long as corolla
Corolla ...	Petals with midrib	Petals without midrib
Seeds ...	Funicle long, folded with the last fold thickened	Funicle short, gradually thickened from the base, so as to be clavate

*Distribution of the Species.*—*Acacia cyanophylla* is a Swan River species. It is common all round the coast and along the river, and has been collected at Cranbrook in the Stirling District by Diels and Pritzel. *Acacia saligna*, on the other hand was originally described from King George's Sound, and there is no record of its having been obtained further north. I have, however, collected it on the Swan River, growing amongst *A. cyanophylla*, at Crawley and Applecross, and by the Helena River at Greenmount. Its similarity to the common species has probably been the reason why it has been overlooked.

*Acacia cyclopis* is common round the coast from the Swan River to the Bight. It does not go inland.





A.—*Acacia saligna*.

1. Leaf and cluster of pods showing seeds.
2. Seeds, natural size.
3. Aril, magnified.

B.—*Acacia cyanophylla*.

4. Leaf showing secondary nerve.
5. Leaf not showing secondary nerve.
6. Seed, natural size.
- 6a. Aril, magnified.

C.—*Acacia cyclopis*.

7. Leaves.
8. Pod.
9. Seed with aril (p.—point of attachment).